

Customer No.: 31561
Application No.: 10/604,246
Docket No.: 10038-US-PA

IN THE CLAIMS

Please amend the claims as follows.

Claims 1-7 (canceled).

8. (previously presented) A rapid thermal annealing (RTA) process of a first RTA equipment, wherein the first RTA equipment has a pyrometer for measuring a temperature of the RTA process, the RTA process comprising the following steps:

loading a wafer into a reaction chamber of the first rapid thermal annealing ("RTA") equipment;

proceeding a hold temperature step to maintain the reaction chamber at a first temperature;

proceeding a first ramp up step to ramp up the first temperature to a second temperature of the reaction chamber;

proceeding a stable temperature step to maintain the reaction chamber at the second temperature;

proceeding a second ramp up step to ramp up the second temperature to a main process temperature of the reaction chamber;

processing a first RTA step by maintaining the reaction chamber at the main process temperature;

comparing a measured value of an operation parameter with a preset corresponding reference range of value of a normal RTA process; and

proceeding a second RTA step by maintaining the reaction chamber at the main process temperature when the measured value of the operation parameter is within the

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corresponding reference range of value of the normal RTA process, wherein when the measured value of the operation parameter exceeds the preset corresponding reference range of value of the normal RTA process, the first RTA step is terminated without proceeding with the second RTA step; and

proceeding a cool down step to cool down the main process temperature to the first temperature of the reaction chamber.

Claim 9 (canceled).

10. (currently amended) The RTA process of claim 8, further comprising transferring the wafer from the first RTA equipment into a second RTA equipment when the measured value of the operation parameter is out of range of the preset corresponding reference range of value of the normal RTA process to complete the RTA process of the wafer.

11. (previously presented) The RTA process of claim 8, wherein the operation parameter comprises a temperature, which is measured by the pyrometer.

12. (original) The RTA process of claim 8, wherein the operation parameter comprises a power provided by the first RTA equipment.

13. (previously presented) The RTA process of claim 8, wherein further comprises an operation time of the first RTA step is shorter than an operation time of the second RTA step.

14. (previously presented) The RTA process of claim 8, wherein an operation temperature of the first RTA step and an operation temperature of the second RTA step are same.

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Claim 15-19 (canceled).